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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,355	10/29/2001	Shinobu Togasaki	10002673-1	2701

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HEWLETT-PACKARD COMPANY
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EXAMINER

ANYA, CHARLES E

ART UNIT PAPER NUMBER

2126

DATE MAILED: 08/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/020,355

Applicant(s)

TOGASAKI, SHINOBU

Examiner

Charles E Anya

Art Unit

2126

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-22 are pending in this application.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1-8,10-18 and 20-22 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 5864,679 to Kanai et al.**

4. As to claim 1, Kanai teaches a method for routing a transaction to a front-end server (figure 3 Col. 10 Ln. 40 – 67, figure 4 Col. 13 Ln. 61 – 67, figure 5 Col. 14 Ln. 40 – 52), comprising: identifying at least one attribute-based category for said transaction (figure 9/10 Col. 15 Ln. 26 – 67), identifying at least one of a plurality of front-end servers to process said transaction based at least in part on said identified attribute-based category of said transaction and at least in part on said front-end servers being assigned to execute transactions corresponding to said attribute-based category (Col. 15 Ln. 56 – 62) and routing said transaction to one of said at least one identified front-end servers (Col. 15 Ln. 61 – 62).

Art Unit: 2126

5. As to claim 2, Kanai teaches a method as in claim 1, further comprising assigning said at least one attribute-based category to said transaction (Col. 15 Ln. 26 – 32).

6. As to 3, Kanai teaches a method as in claim 2, wherein assigning said at least one attribute-based category to said transaction comprises associating a tag with said transaction (“...TR-1...” Col. 15 Ln. 32 – 39).

7. As to claim 4, Kanai a method as in claim 1, wherein identifying said at least one front-end server comprises comparing said attribute-based category for said transaction to assigned attribute-based categories for said plurality of front-end servers (Col. 15 Ln. 56 – 62).

8. As to claim 5, Kanai teaches a method as in claim 1, further comprising determining whether said at least one front-end server is available for processing said transaction (Col. 15 Ln. 65 – 67, Col. 17 Ln. 42 – 50).

9. As to claim 6, Kanai teaches a method as in claim 1, further comprising rerouting said transaction to another of said plurality of front-end servers when said identified server refuses said transaction (Col. 13 Ln. 61 – 67, Col. 14 Ln. 1 – 7).

10. As to claim 7, Kanai teaches a method as in claim 1, further comprising determining when said identified attribute-based category is new and assigning said

new attribute-based category to at least one of said plurality of front-end servers (Col. 15 Ln. 1 – 25).

11. As to claim 8, Kanai teaches a method as in claim 7, further comprising notifying a workload manager of said at least one front-end server assigned to said new attribute-based category (“...transaction routing unit...” Col. 15 Ln. 17 – 32).

12. As to claim 10, Kanai teaches an apparatus for routing a transaction to a front-end server (figure 3 Col. 10 Ln. 40 – 67, figure 4 Col. 13 Ln. 61 – 67, figure 5 Col. 14 Ln. 40 – 52), comprising: computer readable storage media; computer readable program code stored on said computer readable storage media, comprising: program code for identifying at least one attribute-based category for said transaction (figure 9/10 Col. 15 Ln. 26 – 67), program code for identifying at least one of a plurality of front-end servers to process said transaction based at least in part on said identified attribute-based category of said transaction and at least in part on said front-end servers being assigned to execute transactions corresponding to said attribute-based category (Col. 15 Ln. 56 – 62) and program code for routing said transaction to one of said at least one identified front-end server (Col. 15 Ln. 56 – 62).

13. As to claim 11, see the rejection of claim 2 above.

Art Unit: 2126

14. As to claim 12, Kanai teaches an apparatus as in claim 10, wherein said attribute-based category is based on at least one "real" attribute of said transaction (figure 9/10 (Database) Col. 15 Ln. 26 – 62).

15. As to claim 13, Kanai teaches an apparatus as in claim 10, wherein said attribute-based category is based on at least one "perceived" attribute of said transaction (figure 9/10 (Withdraw) Col. 15 Ln. 26 – 62).

16. As to claim 14, Kanai teaches an apparatus as in claim 10, further comprising a user table for assigning said at least one attribute-based category to said transaction (Col. 15 Ln. 45 – 62).

17. As to claim 15, see the rejection of claims 5 and 6 above.

18. As to claim 16, Kanai teaches an apparatus as in claim 10, further comprising program code for assigning a number of attribute-based categories to each of said plurality of front-end servers, wherein said program code for routing said transaction to one of said identified front-end servers routes said transaction according to said assigned attribute-based categories (Col. 15 Ln. 56 – 62).

19. As to claim 17, Kanai teaches an apparatus as in claim 16, wherein said program code for assigning at least one attribute-based category to each of said plurality of

Art Unit: 2126

servers bases the assignment at least in part on an affinity of transaction attributes (figure 23 Col. 18 Ln. 51 – 67, Col. 19 Ln. 12 – 37).

20. As to claim 18, Kanai teaches an apparatus as in claim 16, further comprising a workload manager table for recording said assigned attribute-based categories (Col. 15 Ln. 1 – 15).

21. As to claim 20, see the rejection of claim 7 above.

22. As to claim 21, see the rejection of claim 1 above.

23. As to claim 22, Kanai teaches An apparatus as in claim 21, further comprising: means for identifying each of said plurality of servers; and means for assigning at least one attribute-based category to each of said plurality of servers (Col. 15 Ln. 56 – 62).

24. Claims 9 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 5864,679 to Kanai et al. in view of U.S. Pat. No. 6,681,244 B1 to Cross et al.

25. As to claim 9, Kanai is silent with reference to a method as in claim 1, further comprising: determining a status of an attribute-based category; and deallocating said

attribute-based category from said front-end server to which it is assigned when said status is inactive.

26. Cross teaches a method as in claim 1, further comprising: determining a status of an attribute-based category; and deallocating said attribute-based category from said front-end server to which it is assigned when said status is inactive (Col. 6 Ln. 15 – 27).

27. It would be obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Cross and Kanai because the teaching of Cross would improve the system of Kanai by regulating client routing Col. 6 Ln. 15 – 27).

28. As to claim 19, see the rejection of claim 9 above.

Conclusion

29. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Pat. No. 6,424,992 B1 to Devarakonda et al. directed to affinity based router for routing and load balancing clustered server nodes.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E Anya whose telephone number is (703) 305-3411. The examiner can normally be reached on M-F (8:30-6:00) First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, An Meng-Ai can be reached on (703) 305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2126

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Charles E Anya
Examiner
Art Unit 2126

cea.



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